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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/884,736 | 06/19/2001 | Wilbur G. Catabay | 00-654 | 5658 |

24319 7590 07/03/2003
LSI LOGIC CORPORATION
1621 BARBER LANE
MS D-106, LEGAL DEPARTMENT
MILPITAS, CA 95035

EXAMINER

KILDAY, LISA A

| | |
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| ART UNIT | PAPER NUMBER |
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2829

DATE MAILED: 07/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/884,736

Applicant(s)

CATABAY ET AL.

Examiner

Lisa A Kilday

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on RCE filed on 4/24/03.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,6,7,11,15 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1-3,6,7,11,15 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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Election/Restrictions

This restriction is restated from Paper No. 8 to clarify the former office action. The grounds of restriction have not changed.

This application contains claims directed to the following patentably distinct species of the claimed invention:

-Species I: Method for forming single damascene (figs. 1-6)

-Species II: Method for forming dual damascene (figs. 7-11).

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record

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showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

A telephone call was made to John Taylor on 6/16/03 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Response to Arguments

Applicant's arguments filed 4/30/03 have been fully considered but they are not persuasive. Applicant requested in Paper No. 16 for the examiner to consider the arguments filed after Final Rejection in Paper No. 11. Applicant argued on pg. 3 of Paper No. 11 that the species restriction between figures 1-6 and 7-11, which depicted a single damascene structure and dual damascene structure respectively was not distinct. Applicant's point is moot for six reasons. First, on pg. 3, applicant admitted for a second time that the final products of each species were different. Second, methods

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to form different structures have different functions. Third, although both contain a first low k dielectric material, only species II contains a second low k dielectric material. Fourth, the second low k dielectric material is etched to form the dual damascene. Fifth, although both methods contain similar steps, the method drawn to a dual damascene contains a second low k dielectric layer that is necessary for the second etching process used when forming a dual damascene structure. Sixth, the examiner would like to clarify that although both species require etching steps, the first species can only have one etching step because there is only one low k dielectric material layer found in species I.

Applicant argues on pg. 4 of Paper No. 11 that the applicant changed her restriction during examination. Applicant's representative's reasoning is wrong for the following reasons. First, the restriction has always been drawn to Species I: figs. 1-6 and Species II: figs. 7-12. Species I depicts a single damascene structure, which was labeled "Integrated Circuit" in examination because that is how the applicant refers to figs. 1-6. Second, species II has always been labeled a dual damascene structure. Third, it is well known in the art that figs. 1-6 depict a single damascene structure and that figs. 7-11 depict a dual damascene structure. But for the benefit of the applicant, the restriction was repeated to clarify that the requirement is remains drawn to Species I, single damascene and Species II, dual damascene as discussed above.

Regarding the improper and discourteous remarks found both in Paper no. 11 and no. 16, the examiner will not address these comments because they are unrelated to the merits of the case. In Paper no. 11, pg. 4, the applicant's representative

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commented that 'alleged differences between the figures – differences which, it now appears, apparently exist only in imagination.' The following remarks are all found in Paper no. 16. The improper misquote of the examiner on pg. 11, "so-called admission." On pg. 12, the applicant's representative wrote that 'the restriction, when first made was annoying and (in Applicants' judgment) improper.' On pp. 15-16, the comments regarding AIDS, SARS, and a declaration to "kill the rats"! None of these comments will be addressed because they are unrelated to the merits of the case.

For further guidance, the applicant's representative is reminded of §1.3 of the Patent Rules of the MPEP which states that applicants and their attorneys or agents are required to conduct their business with the PTO with decorum and courtesy.

Conclusion

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-0957. See MPEP 203.08.

Any inquiry concerning this communication from the examiner should be directed to the examiner's supervisor, Kamand Cuneo, can be reached on (703) 308-1233. The fax number for the group is (703) 305-3432. MPEP 502.01 contains instructions regarding procedures used in submitting responses by facsimile transmission.

Lisa Kilday
LAK

6/20/03


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